









## Poultry.

## Profitable Ostrich Farming.

The ostrich farm is located on the road between Los Angeles and Pasadena and furnishes much interesting views for the inquisitive tourist. The proprietor has surrounded it with every species of tropical trees and with beautiful gardens, fountains and tennis beds. Through these the newly arrived traveler meanders until he reaches the bare corrals of the ostriches and then gazes upon every age of ostrich life. Before entering the farm he passes through the large show-room of the institution, where specimens of ostrich finery is displayed and where a dozen women are on hand to wait upon the interested feminine tourist. Frequently ladies from the large hotels of Pasadena and Los Angeles, thinking that they get the fresh, native-bred, pure ostrich feather direct from the back of the California ostrich, purchase several hundred dollars' worth. At these hotels they charge \$8 a day for room and board, so that the proprietor is able to pay those prices with no trouble in buying a few hundred dollars worth of ostrich feathers at a time.

Another source of revenue for the ostrich farmer of southern California is from the sale of the ostrich young. A prolific pair of ostriches will hatch about forty chicks every year. These are worth immediately upon their arrival about \$25 each and have a ready sale to the American Ostrich Trust, whose headquarters are at Phoenix, Ariz. Every temptation is given to the California ostrich to lay; and the eggs are carefully taken to the incubators, where they are kept warm for the period of six weeks, and after they hatch the little ostriches are most carefully attended to by the owner employed for that purpose. During the day they wander about the green swards and show the soft alfalfa; at evening they are taken into the incubators and kept in long boxes warmed by lamps. In spite of this care perhaps ten per cent. of these young creatures are called away by pneumonia; thereafter their bodies stuffed are on sale for \$5 each.

The largest source of revenue to the California ostrich farmer is the sale of the ostrich feathers. These come from the ostrich in a crude and threadbare state; but they are so suited that the modern admirer of the millinery world is the result. One ostrich farmer has advertised the California ostrich feather in the various ladies' papers all over the land; the consequence has been an immense revival of almost universal belief. Ladies from all over the country have written to the institution, thousands of dollars are received daily by this enterprising ostrich farmer, and the California ostrich feather—the forerunner of a great industry—has been advertised all over the land. Some \$15,000 are invested in ostriches, land and buildings by this ostrich farmer in California. Some \$200,000 per annum are received by him from the ladies of the land for the California ostrich feather. In all the wonderful productions of California, in all its vast enterprises, whether mining, oil, citrus fruits, wool or cattle, no enterprise has ever paid such enormous profits as this ostrich industry.

Looking over the history of the art we can see no parallel to the California ostrich success. Ostrich farmers thrive at the Cape of Africa and furnish to the London market \$8,000,000 worth of ostrich feathers every year. One African ostrich farmer is known to possess ten thousand ostriches. No African ostrich farmer on the money he invested ever realized a fraction of that obtained by the California ostrich farmer, for the latter in the capacity of showman, breeder and feather vendor, realizes profits that are fabulous. The United States consumes \$2,000,000 worth of ostrich feathers every year for the decoration of its femininity. When the United States buys all its ostrich feathers in California the dream of the enthusiastic importer, of whom we have been speaking, will be realized. The trade in African ostrich feathers is unquestionably now being affected by the enterprise and expenditure of the California ostrich farmer. The ladies of this country are finding that the American ostrich feather is just as good as the African, for indeed the American ostrich is a direct descendant of the African. Not to be outdone in regard to quality of feather stock, this daring capitalist has imported a number of wild ostriches from the district of the Nile in Egypt to California, for it is well known that the wild ostrich of the Sudan furnishes the finest of ostrich feathers; these he is now mating with the domesticated African import, the consequence whereof will be the finest ostrich feather of commerce.

Looking over the vast revenues obtained by the speculators in oil propositions, the great oil fields of southern California, not all of which are profit, and the various other products, olives, figs, prunes, apricots, plums, etc., it is safe to state that nothing pays so well at this writing in southern California as the cultivation of that long-legged freak that comes from the interior of the Dark Continent and supplies its decoration to the insatiable demands of fashion—the ostrich. E. H. RYDALL, Los Angeles, Cal.

## Turkey Raising.

In order to rear turkeys successfully, a dry soil and shelter from cold east winds are essential. It is a mistake to attempt to rear them on tainted ground, or on the same land year after year; nor should they be reared together in large numbers unless very extensive grass runs are available and brooded by more often banded and brooded by natural than by artificial methods, and the former system is generally to be recommended. The young birds require very careful brooding for the first few weeks, and this can best be obtained from a natural mother. The general treatment required for young turkeys is very similar to that for chickens, except that for the first few days closer attention must be paid to them. For twenty-four hours after hatching they require no food. During the following four days hard-boiled eggs and bread crumbs may be given, for which, after the second day, oatmeal or bluish milk mixed with sweet milk may be substituted. Boiled rice is a useful addition to the diet, and prevents diarrhoea. The young turkeys must be fed very frequently during this period. At the end of a fortnight grain may be gradually introduced into the diet, including fine grit. Small wheat is very suitable, but should be given in limited quantities. Mixed mash, consisting of ground oats, corn meal and wheat bran, should, however, be the chief food until the birds are three or four months old. Skimmed or separated milk is better than water for mixing the meals. No food, especially during the first few weeks, should be given in a very wet or sloppy condition, as this causes diarrhoea in young birds. Turkeys require more fresh meat than do chickens. Boiled fresh meat or liver, finely chopped, is most



THE LIVE STOCK OF AN OSTRICH FARM.  
See descriptive article.

## Horticultural.

## Fruit and Berry Notes.

It is suggested that all fruit growers take much pains to secure trustworthy pickers. Careless, slovenly gathering of the fruit may rob it of half its value. It is often necessary for those who live remote from villages to provide quarters for their pickers. Usually, the better the quarters, the better the class of pickers.

On the average, apples do not cost more than fifty cents a barrel to produce, but they ought. If a little more time and care were given the returns would be better. Suppose the sales averaged \$1.50, then the returns are excellent, and there is money to be made. When the price is \$2 a barrel, as at present, then there is certainly an excellent profit in apples, much greater than can be obtained from oranges.—Prof. W. M. Manson, Orono, Me.

The greatest number of prizes at the Pan-American Exposition were awarded to apples grown in grass land. By that method of growing fertilizers must be put on the ground chemicals, and much must be used in abundance. Phosphate rock, nitrate of soda and sulphate of potash are preferred.—S. T. Maynard, Northboro, Mass.

No definite rule can be laid down either as to the kind or the amount of commercial fertilizers which can be used profitably on an apple orchard. I suggest that trial be made on a few trees each with acid phosphate alone at the rate of six hundred pounds per acre, sulphate of potash alone at the rate of four hundred pounds per acre, and of these two combined. This will give some indication as to whether these fertilizers may be used successfully. If growth is not vigorous under proper cultivation, then try nitrate of soda at about 150 pounds per acre, when the leaves open, and again in about three weeks, and then use nitrogen gathering cover crops.—S. A. Beach, Geneva, N. Y.

## Setting Plants.

In handling and setting out plants, never let the roots shrivel or dry out. After plants and cuttings are in the ground, never leave them just long enough to dry out and die. Keep them moist until some new roots have formed. In setting out plants, especially strawberries, spread out the roots and make the ground very fine about them. In trenching stock, put the roots down deeply, and cover well half-way up to the stems. The gardener who fails to carry out the principles under this number has not learned the letter A of his business.

## Fruit Will be Plenty.

The apple crop in the Ozark section of Missouri is said to be very large and of fine quality. Extensive shipments of peaches from that section are promised.

Apples promise a big crop in western New York, also cherries. Plums are only a fair crop and pears reported short on account of the great damage caused by the winter. It is thought, however, that Bartlett and Kieffer will be a fair crop.

The latest reports from Connecticut peach sections are to the effect that a fair crop may be expected, particularly from the hill orchards in the southern counties. Barnes Brothers at Valleyville expect perhaps about fifty thousand baskets, and fully as large a crop is reported from J. H. Haie's orchard at Seymour and South Glastonbury. The large orchards in the neighborhood of Middletown and Wallingford are said to promise as well as could be expected after the severe damage received by a portion of the trees last winter. Shipments from southern Connecticut usually begin the last week in August.

A New York fruit man, who has been through the fruit-growing section of the Hudson river valley, reports that the apple crop will be large. The outlook in Columbia County is reported fair; excellent in Dutchess and Greene counties, and the best for years in Albany County. Early varieties promise particularly well. The output of the valley as a whole will be large, but probably the demand will be considerably less extensive than that of last year, unless prices are lower.

## Vegetables and Fruit.

Gardeners who sell from the street are carrying mostly spinach, radishes, onions, cucumbers, peas, beets and turnips, some of these being hot-house or cold-frame products. Rhubarb and asparagus are mostly shipped by rail from towns some distance out. Prices of these native products show no marked change. The first year were brought in from the Frank Coolidge farm, Watertown, and from another farm in the same town, and sold at \$3.50 per bushel, which is about the usual price for first arrivals. The light, rich land of that section is the earliest and best. Peas from near Providence and New Haven have been on the market for some time. These are styled "native," and sell as high as those from nearby towns.

Asparagus is in moderate supply, and the demand falls off when peas, etc., become plenty. Prices are well sustained for the season. Hot-house tomatoes are higher, also mushrooms. Native hot-house cauliflowers, rather poor in quality, are in the market. Southern cabbages, beans and cucumbers are plenty, but tomatoes of good grade are in only moderate supply.

Native strawberries were of poor grade at the start and sold below best Jersey and New York stock, but are improving. The abundance and low price of Southern berries and the fairly good shape in which they have arrived during the cool weather of the month have no doubt taken edge off the demand for fresh native berries. Blueberries and blackberries from the South are of low grade and not in much demand; melons are also poor as yet.

At New York new potatoes are in larger supply, and with a further increase in receipts expected later in the week prices are declining. Outside quotations on Rose as given are quite extreme, and the top figures on Chilis are very

full at the close, although they were occasionally exceeded on exceptionally prime grades. Old potatoes continue scarce and high. Asparagus is easier under larger supplies. Green peas are quite plenty from both Jersey and Long Island, and the quality is very irregular; strictly choice stock met a pretty good demand and ruled firm. Baltimore cabbages sold at well sustained prices; Norfolk stock nominally unchanged in the absence of fresh receipts. Cucumbers were more plenty; a few choice sold at sustained prices, but the market weakened. Florida tomatoes are in light supply, especially fancy grades which are higher and firm. Georgia peaches are moving fairly well at previous quotations, but the outside figure has become more extreme and is barely reached. Plums are a little lower, principally because the condition was not so good. Strawberries lower under larger receipts and a slow trade. Fancy blackberries and huckleberries hold steady, while common and inferior qualities drag at easy prices. A few Maryland red raspberries have appeared and sold at extreme prices. Musk-melon and small-size stock, green and flat-flavored, for which any reasonable bids have to be accepted. Watermelons are without much change, but the outside figures are extreme.

## Current Happenings.

At Morningside Park, New York, was unveiled recently a brass tablet in memory of citizens who volunteered for the defense of the city during the war of 1812-15. This memorial was erected by the Women's Auxiliary to the American Scenic and Historic Preservation Society, and its president, Miss Mary Van Burgh Vanderpool, presented it to the city in a neat address, to which the Commissioner of Parks responded. Among the societies represented were the Mayflower Society, Colonial Dames, four chapters of the Daughters of the American Revolution, the Founders and Patriot Settlers and Defenders and the Sons of the American Revolution. The tablet was covered before unveiling by a facsimile of the flag used during the war of 1812, bearing sixteen stars, which was lent by Mrs. Richard Henry Greene.

Mrs. Ann Sophia Farnum, late of New Haven, has bequeathed to Yale University her old home for a "president's house," after the death of her son, Prof. Henry W. Farnum, one of the Yale faculty. She wished to revive an old custom, whereby each succeeding president occupied during his term in office the same house as his predecessor. Mrs. Farnum also gave the university in her will securities amounting to \$100,000, which will become available at the same time as the other bequest. The house is of brick with brown stone trimmings, and is beautifully situated on Hill-house avenue, the grounds extending through to Whitney avenue.

A correspondent of the New York Tribune says that the idea of the Industrial Homes for Inebriate Women at Duxbury, England, originated in the mind of Dr. Sarah Anderson Brown, who was formerly assistant in the Children's Hospital, Roxbury, Mass. She was obliged to relinquish this position on account of spinal trouble, which confined her to her room for over a year. She afterward took a special course in the treatment of eye and ear diseases under Dr. Knapp and graduated as the head of a class consisting mostly of young men. Later she sailed for North China, to take up missionary work, but her health was undermined by the long voyage, and she returned to her birthplace at Waterford, N. Y. She subsequently became the wife of R. C. Brown of England, and resided there until her death, two years ago at Raleigh, Essex. The alarming prevalence of drunkenness among the working women of her adopted country excited her pity, and she resolved to make some effort to save those inebriates of her own sex who were not wholly depraved. She viewed the subject from a scientific as well as a humanitarian standpoint, and she was convinced that amid healthful and congenial surroundings many women might be restored to usefulness and freed from a debasing habit.

Industrial farm homes, she conceived after much thought, were what were needed in the work of reclamation, and she communicated the results of her reflections to Lady Henry Somerset, who invited Dr. Brown to pay her a visit for the purpose of talking the matter over. The outcome of this consultation was that Dr. Brown was asked to take the preliminary steps for the establishment of the philanthropy, and to raise funds for its foundation and temporary support. Dr. Brown sent copies of a circular letter, outlining her plans, in various directions where they would be most effective, and she spoke to large audiences in advocacy of the new home, raising, thereby, large sums from sympathetic people who endorsed her movement. Through her efforts, largely, the idea of the home was made a reality, though Lady Henry Somerset now seems to get the whole credit for the laudable enterprise, possibly on account of no effort of her own to claim that she was the sole originator of the retreat at Duxbury. An American woman has recently gone abroad to examine the features of English industrial homes with the intention of copying them here, probably with no thought that they were evolved from the brain of one of her own countrywomen.

The late Elisha S. Converse had all that should accompany old age, riches, honors and troops of friends. Though he had been for a few years less active, by reason of natural infirmities, than in earlier days, he will be greatly missed in business and social circles, where he was an inspiring example of what is most worthy in all the relations of life. He was the soul of uprightness in every mercantile transaction, and he was the promoter of good feeling in the walks of trade, where the misanthropic poet has said, mistakenly, that nothing breeds but

gold. To young men Mr. Converse was ever a wise and willing counsellor, drawing from the results of his long experience lessons that were a guide to those who had much to learn in business ways. He pointed the way to true success for many who now honor and revere his memory. But above all he was a public and private benefactor, doing as much in the cause of charity quietly and unostentatiously as he did in organized directions, for he knew how to distribute the riches that heaven had given him in the spirit of the Master, whom he ever desired to follow. Elisha Converse was clean in thought and deed, and he will meet with the reward promised the pure in heart. "Ever faithful" should be inscribed upon his tomb. The following are some of his bequests: To the Malden Public Library he leaves a trust fund of \$150,000, to be known as the "Elisha S. and Mary D. Converse fund," the income of which is to be used for the purchase of works of art. He provides a fund of \$10,000 for the employees of the Boston Rubber Shoe Company, \$600 of the income of which shall be distributed annually to employees in need of assistance. At the end of ten years the principal is to revert to the Malden Industrial Society, the income of which is to be spent on the poor. The Malden Industrial Society receives a trust fund of \$25,000, two-thirds of the income of which shall be devoted to the maintenance of the day nursery. The First Baptist Church of Malden receives a trust fund of \$15,000, the income of which will go to the deserving poor.

## The Seauter.

Two esteemed school-teachers of Boston, valued friends of mine, recently visited New York. They are unmarried because the right men have not yet come along to win their hearts and savings. They do not consider themselves old. Neither do I, though I would hardly say that they are standing where the brook and river meet; in fact, some distance from that spot, though they are still near shore on the ocean of spinsterhood. However, they received a rebuke in the metropolis which they did not merit. Instead of going to a hotel, they lodged at a recommended house up-town in the metropolis, the lower part of which had just been changed over for business purposes. They were pleased with their room, which had an agreeable outlook, and was of the size to be found in the usual brown stone buildings which have been deserted by aristocratic get-togethers who keep moving on toward the end of Manhattan Island. The young ladies felicitated themselves on account of their agreeable surroundings until they went out in the morning for breakfast in a neighboring restaurant. Then they discovered beneath their windows a monstrous sign, bearing in large gilt letters the horrible word "Antiques," and they found they had been sleeping just over a shop devoted to the sale of ancestral relics. They did not invite any feminine Gotham friends to call on them, lest they should make sarcastic remarks about the surprising appropriateness of an accidental designation.

Sometimes a gift costs as much as it is worth and more, too. For instance, last fall, Blewit, who is very popular with his business associates, had a silver wedding, and the "boys" resolved to make him a

present. They accordingly passed round the hat, and from the coin collected by this operation they purchased a diamond costing about thirty dollars, which they presented to their host, who gave them a fine supper. After this some one proposed draw poker and the result was the man of the house lost about fifty dollars, for he had to furnish money to his two sons, who were out of employment, to keep up their ends of the game. Now he has gone up into the country, on a New Hampshire farm, and he has invited them, in a letter, in which he says, "Don't bring up any more money for a gift." It is to be hoped that in the wilds of nature he will be able to clean out his guests.

Last week was Commencement at the Massachusetts Agricultural College. Tuesday was Class Day. At half-past one o'clock the Class Day exercises, which were opened by the planting of the class ivy by the class president, Mr. A. W. Gilbert, Dr. C. S. Walker, the college chaplain, then offered prayer, following which were the ivy poem by Mr. R. R. Raynold, the class oration by Mr. J. W. Gregg, the class song written by Mr. F. D. Couden, and the class ode written by Mr. M. A. Blake. The campus oration, which was next delivered by Mr. M. F. Ahern, contained many laudable allusions to the various members of the college and faculty as the class had observed them. The pipe oration was given by Mr. G. E. O'Hearn and the hatchet oration by Mr. F. D. Couden, after which the class moved to their class tree, beside which the hatchet itself was buried with appropriate ceremonies. The graduating exercises took place Wednesday, and Thursday was scheduled for the summer field meeting, under auspices of the State Board of Agriculture, at which the farmers of the State were invited to be present.

Chicago special says grain will be weak before last was largest in seven months. Receipts at Chicago were 5,200,000 bushels, a gain of sixteen per cent. over previous week, twenty-two per cent. over last year, and 16 1/2 per cent. over the average for the past five years.

A result of the reduction made by the trans-Atlantic steamship lines, it is expected that Boston will receive 16,300 immigrants during the next month.

The destruction wrought on crops by countless plant enemies throughout the country is revealed by a report issued by the Department of Agriculture on "Plant Diseases in 1903." Besides the mass of detail regarding conditions in the United States proper, it shows that the coffee-leaf beetle has accidentally been introduced into Porto Rico and measures are being taken to stamp it out. Cocoa in Porto Rico is affected by a black-pod rot canker and root disease. The tomato blight has practically ruined the tomato crop of Porto Rico. A potato rot has caused the loss of nearly the entire potato crop. Orange scab has caused considerable damage in the Bayamon district. Beans and cow-peas are injured by various fungi. The potato dry rot continues injurious in the Hawaiian Islands. The cotton-rot rot in Texas prevailed to a greater extent than for many years, the loss being estimated at about \$2,000,000.

The committee on gardens of the Massachusetts Horticultural Society offers a series of prizes for best gardens and greenhouses. Awards of \$100 and \$50 are offered for an estate of not less than three acres which shall be laid out with the most taste, planted most judiciously and kept in the best order for three consecutive years. Four prizes of \$20 to \$40 for best houses of chrysanthemums. Prizes of \$20 and \$30 for the best house of fruit plants grown in pots or tubs included. First prizes of \$30 and second prizes of \$20 for best houses of palms and foliage plants; best houses of foreign grapes; best houses not commercial of carnations, best houses not commercial of roses; best vegetable garden not commercial.

## WE HAVE SOME VERY GOOD PERCHERON STALLIONS

THAT we can sell at Year Prices and we have some excellent Percheron stallions that you will want to buy at Year Prices.

Don't wait until some one else gets what you want. Come soon and see every first-prize winner at the last Minnesota State Fair, excepting one.

**T. L. & J. L. DeLancey, and Breeders Northfield, Minn.**  
On C. M. & St. P., C. R. I. & P. and C. W. Rys.

## KEISER BROS., KEISER BROS. & PHILLIPS. RED KEY, IND., IMPORTERS AND BREEDERS OF Percherons, Shires and French Coach Stallions.

Never were better prepared and disposed to furnish you such excellent horses at such conservative figures as at the present time.

**ROSEMONT HEREFORDS** HEADED BY THE FAMOUS ACROBAT 68460  
Assisted by MARQUIS OF SALISBURY 16th 13888, the best son of Imp. Salisbury.  
Catalogue on application. Correspondence solicited. Visitors welcome.  
**CHARLES E. CLAPP, BERRYVILLE, Clark Co., Va.**

**SINNISSIPPI SHORT-HORNS**  
**FRANK O. LOWDEN, Prop.**  
Herd headed by the prize-winning bull VALIANT 171067, assisted by the grand young Scotch bull GOOD MORNING 182755.  
Young Bulls Suitable for Service for Sale.  
Address all communications to W. J. & A. G. BAKER, Mgrs., OREGON, ILL. telephone 38.

## OUR COFFEE ORIENTAL MALE BERRY JAVA Satisfies You!

Give us a chance on your TEA. We assure you fair prices and purity in TEA.

FORMOSA, OOLONG,	35c., 40c
ENGLISH BREAKFAST,	50c., 60c
SOUCHONG, JAPAN,	75c., 90c
GUNPOWDER, HYSO,	
INDIA and CEYLON TEAS	\$1.00, \$1.25 Sign of the Big T Kettle



Afternoon Tea, Flowery Pekoe, \$1.50.

## ORIENTAL TEA CO.,

Scollay Square, Opp. Subway Station, Boston, Mass.



MASSACHUSETTS PLOUGHMAN  
JOURNAL OF AGRICULTURE

TELEPHONE NO. 3787 MAIN.

Better one acre well tended than two acres half neglected.

Plan to send something to the local Grange or agricultural fair.

What is this commotion on the roof of the world? Evidently the Tibetans don't mistake it for Santa Claus.

Colonel Pow again leads an advance,—this time toward higher academic training for the officers of the State militia.

Even Mr. Mori's statement that the missionaire's use of English is very nice is delivered with qualifications.

Of course all the really gallant school-boys will immediately present their bouquets to the nearest schoolgirl graduates.

When it's a question of permitting uninvited persons to snap undesirable cameras, even Christian Science may become muscullar.

The boll weevil may well tremble. Science has assembled an army of parasites for his destruction, and the army is reported to be in transit from Guatemala.

The latest prophet predicts the end of the world at eleven o'clock, Nov. 16, 1926. This will give an unusual opportunity for conversions at the eleventh hour.

The final touch of that convict wedding out in Illinois was supplied by the two deputies who trudged behind the happy pair and whistled the wedding march.

Sensible emigrants will probably realize that ten dollars is a suspiciously low passage rate to a country where one is supposed to be able to pick up gold in the streets.

If the question were put to an immediate vote Yale undergraduate opinion would probably be unanimous in upholding professional baseball as the college graduate's best field of activity.

President Smith of the Mormon Church should certainly be an authority on the characteristics and attributes of mothers-in-law. His own mothers-in-law, he says, were worthy of their daughters.

There is still work for the public schools to do so long as any portion of the Massachusetts population can be fooled by a plausible person who promises to make money increase by "charming" it.

The fact is not specified, but one cannot help suspecting that the ice-cream man who recently got into trouble by hugging a fair young customer had been surreptitiously sampling the frozen pudding.

"Certain kinds of music prevent the hair from falling out," says Mrs. Amelia Weed Holbrook, "and other kinds produce baldness." Some kinds of music, so called, also have a tendency to turn the hair gray,—particularly the kind produced by the misguided young woman who is learning to sing in the next flat.

Less than a dozen citizens gathered at the public hearing of the commission appointed to consider the height of buildings in Boston. And yet we have personally met more than a dozen who declared themselves horribly indignant over the new sky-scraper on Beacon Hill. Mere conversational indignation, however, will not prevent the growth of other like disfigurements.

Will the young men of New England rally about the banner of the determined Pennsylvanian, who is suing a young woman for breach of promise, not in anger, but with the determination of setting a practical and necessary example? And if they do, will not womankind rise in defense of a dear prerogative; to err is human, moreover, and to jilt is sometimes the better part of wisdom.

New Haven will have a quieter Fourth than usual this year if Mayor Studley has anything to say about it; and apparently he has enough to say to make himself unpopular with many of those over whom he has been called to govern. He will have popularity enough, however, with those who sufficiently respect the day to deprecate the abuses to which it has been lately subjected.

Cut-worms seem to be the most troublesome pest of the season so far. Bran mash poisoned will attract and kill them, or a little fence of tarred paper around each plant when setting out will exclude them. The old plan of digging out the pests one by one is slow, but safe and sure. A rather suspicious report arrives from Ireland of an experiment in which all bugs and worms in the soil were killed by a powerful charge of electricity sent through network of wires, but American gardeners are hardly up to such a plan as yet.

Land that is not by nature and condition suited for the profitable growth of corn or potatoes, will not be very good for apples. Of course, the trees can be made to grow in rough, steep or rocky locations by liberal use of mulch, manure, hard work and patient waiting. But land which can be quickly and easily worked and used for regular field crops the first few years and then for green crops to be plowed under, will produce and maintain an orchard at far less cost, the saving in most localities being more than enough to offset the original difference in value of the land.

The strong point of the St. Louis Exposition is its agricultural department, which is quite as important and prominent as the manufactures were at the Chicago fair of eleven years ago. The whole history and progress of the world's greatest industry are shown in a compact form. It is understood that the opportunity to prepare a complete history and record of agriculture in book form will be taken up by F. W. Taylor, chief of the department, a work likely to be of value to agricultural students. After all, it is the work suggested and stimulated by the great expositions which finally proves of more lasting value than the shows themselves.

Great is King Grass, and welcome are his prime ministers, Mr. Clark of Connecticut, Professors Wheeler, Brooks, Gowell and the rest. To listen to any one of them urging the possibilities of New England's great staple product is enough to make a grass crank of every man who owns a little

heavy, moist land. Among the points on which they all agree are thorough, repeated tillage before seeding, a smooth seedbed, thick, careful seeding, heavy, annual top-dressing of chemicals or manure, or frequent reseedings. These methods cost more than the let-alone plan often practiced, but they pay better, too, particularly when hay prices are at the high levels of recent years.

While so many young people of the best native stock are looking for easy work in the cities, the best lands are being seized upon by people with foreign names at prices which their children will consider very low indeed. "The foreigners," exclaimed a New York produce dealer, "will own all the good truck-farming country for a hundred miles around New York, if our American young fellows do not wake up and get over that foolish notion of rushing off to the city." In past years the young man who took up Western land often acquired a competence much sooner than his brother who went to the city, even if both succeeded fairly well. Desirable Western land is now too costly to afford any special opportunities, but there are wonderful bargains in the Eastern States. As soon as the situation is fully realized, values can hardly fail to go up with something like a boom in Eastern farm lands.

The apostle of "corn breeding," Professor Holden of Iowa, has been giving lectures in the central West explaining the methods by which he has improved corn to yield an average of not less than seventy-two bushels per acre for a series of years. Many large corn growers seem convinced of the value of the method, which consists in sorting and selection of the seed by hand. One grower will put in thirteen thousand acres of corn and has given orders that every ear be sorted for germinating powers and size as directed by Professor Holden. The professor insists that the best ears only should be chosen; then ears showing faulty kernels should be thrown out. Butts and tips should be shelled off by hand and rejected. Next, the ears are shelled by machine, one ear at a time, showing any defects, and the poor seeds thrown away. The seed is separated into three sizes, and three sets of planter plates are filled, so as to drop the right number of kernels in each hill nearly every time. The success of Professor Holden's methods indicates that its general practice would add five hundred thousand bushels to the yield of corn in the leading corn-growing States. It would mean an average of fifty bushels per acre, instead of about thirty bushels as at present. The good results appear to be well proven and attested by best authority. Eastern growers must take up the idea. The corn crop has been too much neglected in recent years. If selection of seed will increase the crop twenty bushels or more per acre, the result would make a welcome difference in the feed bills.

## Keeping Down the Milk Surplus.

It is an excellent sign of growing spirit, of courage and resolution, that some of the milk producers have refused to ship milk to Boston beyond the amount for which schedule price is paid. As was expected, some of the contractors have already felt obliged to raise the shipping basis of their producers. When the patronage begins to lessen, other contractors may be obliged to follow suit. Such would surely be the result if every shipper would refuse to send a single can beyond limit for which full price is paid. Much better sell to the creameries or condensaries, or make butter. The present cash receipts might be no larger than if all the milk were shipped, but every can of surplus milk held back strengthens the city milk market, and so helps to impart confidence to the price committees when the contracts are renewed. If shippers will keep close to the limit, the battle is won in advance so far as concerns the hated surplus clause.

In reckoning the returns for milk not shipped the actual results are often much better than at first appears. There is the strengthening of the market, as just noted, which is in due time a benefit to all shippers, and of which result each gets a share in the steadily improving tendency of the conditions under which the milk is shipped. Then there is the skim milk which is often undervalued. Many farmers appear eager to sell all they have at half a cent per quart or less, which is about the value usually placed on this product by scientists. Even half a cent per quart added to the receipts for cream or butter shows quite a good total return. But it is becoming quite generally realized that for certain special feeding purposes skim milk is worth more than was formerly supposed. Thus, if fed to early broiler chickens, or given when fresh and warm from the separator to veal calves with a little flour or fine corn meal, it will in either case increase the product to show a value of nearer one cent per quart more than that sometimes in the hands of skilled and careful feeders, the returns depending somewhat on the market for veal or chickens. Older chickens or fowls fattened on a part milk diet command a special price if properly marketed.

In reckoning the value of skim milk the fact should also be remembered that its use on the farm retains much fertility that would otherwise be lost to the farm. This item alone is, in the long run, an important consideration. What gain to the farm to buy fertilizers by the bag, and ship away the result by the can? If the price is large enough to pay for the loss of feeding value and fertility, well and good. But the inflexible rule should be "No milk shipped at surplus prices." Better from every point of view to hold back the extra milk.

## Farming in Japan.

According to the Exorsion Journal of Tokio, the emperors of Japan have given attention to the progress of agriculture for twenty-five centuries, the industry having been recognized as a bulwark of the national prosperity. The farming class, it is stated, constitutes about sixty per cent. of the population, about 1,470,000 of the farmers being owners of the land they occupy, two million partly owners and 930,000 tenants. Most of the holdings are extremely small, the average area of land to a family being not over 2½ acres. Rice and other tropical and sub-tropical crops are the chief products. In the warm districts two or three crops are grown in a season on the same land, rape, ginger, clover, indigo and beans being among the crops grown after rice. The cultivation of fruit and vegetables has made great progress in recent years. The live-stock industry has been restricted to a considerable extent by the prohibition of animal food by the Buddhist religion; but the importance of improving the breeds of cattle has long been recognized, a government breeding establishment having been established some years ago. Still greater efforts are made to improve horse breeding, which is regarded as of great importance to the country. For some years past well-bred

stallions and mares have been imported from foreign countries. In 1902 the number of horses was estimated at 1,553,773, and that of cattle at 1,282,541. As long ago as 1884 the Bureau of Agriculture and Commerce established experimental farms near Tokio, and in 1893 branch farms were founded at six other places. At present there are thirty-eight of these farms under government control and 110 in sub-prefectural districts. Local agricultural schools are aided by the government, lecturers being appointed to give scientific and practical instruction.

## Character and the Technical Graduate.

It is of exceeding interest that Bishop Lawrence should have chosen as the subject of his baccalaureate address to the class of 1904 at the Institute of Technology last Sunday exactly the same theme that Mr. Robert Herrick has been expounding in novel form in the course of a serial story, "The Hero of the Month." The most vital problem before this nation today," said the bishop, "is whether the enormous development of wealth which is upon us in the coming century, our great material possessions and our tremendous mechanical and industrial resources are to suppress and overwhelm the characters of men; or whether the spiritual elements in men are going to be great enough to use these modern instruments for the creation of a gigantic spiritual force controlling material resources, thus building up a people rich in material power, but far richer in all that goes to make high character."

Every young man in these days finds it difficult to discover his place. He may be wonderfully well fitted for the work he wishes to do in the world, but is often lacking before long in the power to give him. Meanwhile, perhaps, he marries, as Mr. Herrick's young man does, a girl with noble aspirations. Less courageous novelists dealing with the problems of our time have made the extravagance of the wife, it is to be noted, the cause of the husband's downfall. Such a solution of the plot is very easy, but not altogether convincing. The fault is in a man's self, not in his wife, if he prove a coward and a cheat. Young Hart in the novel is unable to repel temptation, and Mr. Herrick clearly shows such to be the case. "There are men in our communities, weak-willed creatures, who cannot stand the strain of a ten-dollar bill," said the sermon of last Sunday. "There are other weak characters who cannot stand the strain of one hundred thousand dollars."

To this latter class belongs Jackson Hart, and hundreds of other attractive young men. His work, like that of many technical graduates, dealt with huge contracts,—he is an architect,—and opportunities to make more money than his commissions would bring him come all the time his way; if only he will stint on expense, substitute inferior material for that which his specifications call for, huge checks are handed him. To this temptation he succumbs, not because of his expenses at home, or because his wife falls in any least particular to be all that a wife should be, not even because he has not enough to meet in a modest way all proper expenses, but because he has so little self-restraint that he must indulge in expensive enjoyments he cannot afford,—just like the men of whom the bishop spoke.

Do we not all know such men, nay, can we not from our personal experience sympathize with the temptations that make them stagger? Emphatically yes. Neither the novel nor the sermon is high in the air or at all removed, indeed, from our daily life. Very well, therefore, may the words which the bishop in closing addressed to the technical graduates, apply to each one of us: "See to it that you so adjust your habits, your methods of life and thought that you may keep yourselves clean and alert to the interests of your profession and do your utmost to hold your place and gain on it, you also maintain a right relation to society. . . . This is an age of team play, and the test of the character of the man is as to whether each man will honestly and bravely do his part, not only for himself, but for the whole body."

## Municipal Advancement.

President Eliot has made many valuable suggestions regarding public affairs, but none more wise and practical than those contained in his address to teachers on "Preparations for Citizenship." He urged that children be taught important facts concerning every municipal department, so that when they became voters they would have intelligent ideas concerning the proper way a city should be governed.

Children are naturally curious, and in their desire for information will readily take to the study of anything that appeals directly to their understanding, as many things connected with the carrying out of city works undoubtedly do. If this is doubted, the skeptic has only to observe the groups of children that gather around the spot where any public improvement is being conducted and listen to the questions that the little ones ask about what is going on and the purpose of the undertaking.

Those who might grow up with a knowledge of municipal affairs would not be subject to the wiles of political adventurers, anxious only to enrich themselves at the taxpayers' expense. They would start with an education that would be a safeguard against "jobs," bribery and extortion. Thus bootleggers would be kept in check, for their methods of robbing the public treasury would be understood, and clean men, pledged to honest administration, would be elected. The cheap ward manipulator, under such a condition, would, in time, cease to exist. His occupation would be gone, and he might be relegated to the ranks of the dishonest men who receive deserved legal punishment.

Municipal problems can be made as interesting as history or any other branch of learning; they have to do with the immediate everyday life of the people, and their study in the schools would be of incalculable benefit in developing citizens who would soon outnumber the rogues and keep them in order. By all means, let us have courses of study relating to municipal matters, for through this means will be brought about much-needed reforms in our great and small cities that have been too long the sport of the unprincipled.

## The Colorado Outrage.

The slaughter of non-union miners in Colorado, through the agency of dynamite employed by union men, was an outrage that was as senseless as it was wicked. What the striking miners expected to gain by this dastardly act does not appear. It was simply the deed of revengeful, undisciplined men, who thought they had been wronged because others wage-earners exercised the lawful privilege of selling their labor independently, without consulting any organization. What would be said of a shopkeeper who

shot his neighbor in cold blood because he marked down his goods below the usual price in order to realize money immediately on his stock? Such a man would be a murderer, subject to capital punishment, and the dynamiters in Colorado are assassins who should receive the full penalty of the law for their crimes.

Too long have the public looked tolerantly on rioters and shedders of blood because it was believed that they were men fighting for living wages. They have misunderstood this attitude, and now they have reached a position where they must be quelled by the military arm, irrespective of the justice or injustice of their demands on employers. They have lost all sympathy by their seditious behavior and must be treated as desperadoes and not like honest laborers who have a wrong to right.

If they use physical force in their attempts to compel yielding to the behests of a union, they must expect to meet with similar opposition from those who are appointed to execute the laws and preserve peace. The New York Tribune, in alluding to this subject, says: "The stick of dynamite under a railroad platform is a little like the first gun fired over Charleston harbor in 1861. A great issue is joined. Those who are not for law and government and the protection of a man in his right to work, regardless of the opinion of fellow workmen, and the protection of property owners in the control of their own property, are seen to be against law and to be allies of anarchy." Therefore, we hear few apologies for the Cripple Creek miners and the course they have taken. They are ignorant men, demagogues, who have accepted the advice of demagogues and have executed the villainy they have been taught.

Meanwhile the planners of the recent massacre, directly or indirectly, have sneaked away, leaving the actual murderers to take care of themselves as best they can in their efforts to escape arrest. No legal punishment could be, as we have already said, too severe for these men, the instigators and the actors in one of the most cowardly and unjustifiable crimes in the annals of our country. Plutocrats may have its faults, but it never conspired to send innocent men out of existence without a moment's warning. Are all labor organizations as guiltless?

## The Milk Company's Success.

The Boston Milk Producers Corporation is going ahead with a boom that surprises even its enthusiastic promoters. Milk farmers seem to be almost falling over one another in their eagerness to be counted in with the movement.

At any rate, that is the impression suggested by the fact that in some towns almost every producer has taken stock in the company. Only a part of the territory has been gone over, but in this vicinity, at least, very thorough work is being done, and practically complete control is being secured through the ready co-operation of the producers. At this rate the company will easily control milk enough to be enabled to make a direct deal with the Boston contractors, if thought best, or to supply all needs if it is decided to hire a distributing station in Boston. It may be that the willingness of producers to join will result in more milk being pledged than is wanted, in which case those who do not join early will regret their hesitation. The members of the committee engaged in taking subscriptions are delighted with the progress and with the resolute spirit shown by the farmers.

The feeling of courage and confidence is undoubtedly stronger than ever before, as shown not only by the readiness to take and pay for the stock, but also to hold back milk and peddle it or feed it to veal calves rather than ship as surplus. This growth of the co-operative feeling adds strength to the position of the company. Presenting a closely united and resolute front under experienced leadership, they will be able to meet the wholesalers on equal terms.

It is encouraging, also, to note how little remains of the suspicious and distrustful spirit sometimes shown in the past as a result, perhaps, in part, of the schemes of outside parties. But it seems to be generally recognized that the management is of remarkably high grade, comprising men of acknowledged business honor and good standing, chosen from the ranks of the producers themselves. In fact, the officers and directors are brimming over with zeal for the common cause and are putting in a great deal of time and labor for which they can expect no pay except the gratitude of their brother milk farmers. Probably less of gratitude even than they deserve, for the average producer is apt to expect great and speedy results from the smallest of beginnings, when as a matter of fact final success must necessarily require time and patience and the steady support of the producers.

Such is the progress of the movement that the company will no doubt be incorporated soon. Probably an office will be opened in Boston and the work carried on in a systematic manner. The outlook was never brighter for the permanent success of a united movement of producers.

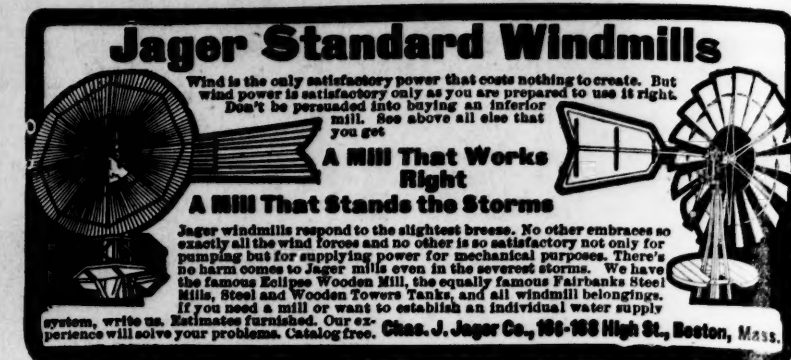
## Watch the Crops and Markets.

It looks now as though the level of prices for crops of field and orchard would be lower next fall and winter than for several years past. Apples and most fruit promise a large crop. Hay will be plentiful, which implies a large output of butter and cheese. Potatoes were extensively planted, and thus far a large crop is indicated.

No special shortage in foreign markets is yet in sight to help us out, although the war situation will, of course, take up some of the surplus grain and provisions. The country is going through a little spell of hard times, which will more or less check the ability of consumers to buy as much farm produce as they would like.

The outlook for the farmers cannot be called discouraging since the possibility of lower prices may be offset by large crops, but it is best to look the situation squarely in the face and plan accordingly. Thus, if apples are to be plenty, better thin out the overladen trees and get fewer apples of a better grade. In a year of plenty, the fancy fruit sells higher in proportion than ordinary grades, which in such seasons are a drug in the market during the height of the season. Usually, however, the export market is good in September, and those who get barrels ready now, and rush their fruit off as soon as fit to pick, will probably get fair prices, even though the crop is a large one.

So with potatoes; the early dug ones will probably find a good, paying market; likewise, perhaps, those which are stored until spring, but those sold at the main season of digging are likely to meet an overloaded market. In regard to hay, there is too much being held over, in hope of getting the extremely high prices of last summer. Such hay should be cleaned out of the stacks, before the prospect of a big new crop makes the good markets now prevailing. With dairy



**Jager Standard Windmills**

Wind is the only satisfactory power that costs nothing to create. But wind power is satisfactory only if you are prepared to use it right. Don't be persuaded into buying an inferior mill. See above all else that you get

**A MILL That Works Right**

**A MILL That Stands the Storms**

Jager windmills respond to the slightest breeze. No other emblems so exactly all the wind forces and no other is so satisfactory not only for pumping but for supplying power for mechanical purposes. There's no harm comes to Jager mills even in the severest storms. We have the famous Eclipse Windmill, the equally famous Fairbanks Windmill, the Steel and Wooden Tower Mills, and all windmill belonging. If you need a mill or want to establish an individual water supply system, write us. Estimates furnished. Our experienced men will solve your problems. Catalog free. **Chas. J. Jager Co., 104-106 High St., Boston, Mass.**

products, about the only thing to do is to lessen the cost. Better cows, with plenty of cheap fodder, ensilage and pomace, will do it. Whether grain is to be high or moderate in price is yet uncertain, but to buy at wholesale for cash will certainly, in the long run, reduce the feed bills.

A careful study of the crops and markets all along the line will pay big returns for the time occupied. The situation may change from month to month, but the wise farmer will not be caught napping.

## What is the Value of Skim Milk.

Three things chiefly govern in answering this question which is constantly being submitted: The condition of the skim milk, its freshness, sweetness and purity. Hoard's Dairyman discusses the topic as follows: We believe that skim milk from a centrifugal farm separator, fed sweet and fresh within an hour after it is separated, night and morning, is worth double, in its feeding effect and value, what ordinary skim milk is worth, when separated either by deep setting, open setting, or the common skim milk of the creamery. In this connection it should not be forgotten that an important part of the nutritive value of milk as a food lies in its purity. Freshly separated skim milk is in its best form in this respect, if it is fed in clean vessels.

The second important consideration that governs value is the age and character of the animals it is fed to. In hog feeding, for instance, it is important to feed skim milk to young pigs rather than old hogs, if the largest profit is expected. A pig weighing fifty to one hundred pounds will make nearly double the profit from skim milk that the same animal will when weighing 150 to two hundred pounds. Here comes in also the question of the kind of animals it is fed to. In our own experience, we find the highest profit in feeding our skim milk, freshly separated on the farm, to registered and grade heifer calves. A likely three-quarter-grade heifer calf at eight months of age will have consumed about four thousand pounds of skim milk. With it should be fed say fifty cents worth of blood-meal, a dollar's worth of oats, and the same value in good hay or pasture. The returns in cash will be found considerably greater than if the milk is fed to pigs of the same value to start with.

Now we come to the most important question of all, the man who feeds it. So much depends on the knowledge and understanding of the farmer. Has he made any special study of how to feed skim milk? Does he know that if fed to hogs in conjunction with some other food, say middlings, corn meal, boiled potatoes, etc., the value is greatly enhanced? This point was finely illustrated by an experiment made by C. F. Goodrich. He found that a hundred pounds of good skim milk would make five pounds of pork when fed alone. Also, that a bushel of shelled corn would make ten pounds of pork when fed alone. But he found to his surprise that if the skim milk and corn meal were mixed and fed together, the gain from the union was twenty per cent. Then besides, there is an understanding of the value of cleanliness of pails and other utensils. This is particularly important with calves. Many a calf has sickened and gone wrong because of the filthy condition of the feeding pail. All these considerations are important if we get the last full profit out of our skim milk.

In Europe the farmers have a much higher idea of the feeding value of skim milk than is entertained by the farmers of the United States. The Belgian farmers fix the value of this important food at thirty-three cents per one hundred pounds. But this value is attained by the fact that the Belgian farmers are thoroughly well posted in the art of feeding and developing young animals. This is a great consideration. Not long since a very successful dairy farmer said to us: "The more I study this business of dairying the stronger is my conviction that the keynote to the whole question lies in developing the calf. If a man goes wrong there he is apt to be wrong most everywhere."

There is a world of truth in that statement and it is easy to see what a bearing it has on the profit a man gets from his skim milk.

## Clover Hay Making.

Dr. I. A. Thayer has done a stateful of good preaching the gospel of clover throughout Pennsylvania, says the National Stockman. I have heard Director Martin say that his address on soil fertility was as helpful as any address on the subject he ever heard. In a recent issue of this paper Dr. Thayer says that he cures his clover chiefly in the shock, and that a rain does not damage it much. Those of our readers who do not shock the clover until it is nearly cured may fall to understand how this may be, but note Dr. Thayer's statement: He puts the clover into shocks "as soon as the stalks and branches have wilted, and before any of the leaves are dried." The shocks are narrow and broad at the top, so that they will not burn. Clover that is barely wilted settles together very closely, and water does not penetrate it easily. This method of making clover hay is practiced also by the Raisons of Armstrong County, Pa., and they rather welcome some rain as soon as the wilted clover has gone into shock. I have made good hay in unfavorable weather by this method, the only failure being one year when the expected good weather did not materialize after several rainy days. But no good hay could have been made by any method that year.

## The Farm Hand Hired From.

It is very seldom one picks up a farm paper without seeing an article giving the farm hand a whack. That is right. Keep on whacking. It makes him feel better. He loves his employer so much more when he reads these highly concentrated items, providing he gets time to indulge in the luxury of reading. Give him time to understand the farm is the proper place for farm hands; impress on his mind that he should be very thankful that you are giving him 365 days work in the year, and that his wages are greater than your great-grandfather used to get. Feed him on common everyday "grab." Sell all your butter and use grease for the table; it will increase your bank account. Take all of your eggs to the

market; they are not good for farm hands to eat—they injure the digestion. Expenses must be kept down, as you are thinking of buying the adjoining half section and you will need the money. Kill two or three fat hogs in the fall and have hog three times a day. Fat hog is the stuff to hang to a hired man's ribs.

Be sure to have an early-rising hour in the winter time for the hired man—say 5 A. M. at least. It will not be necessary for you to get up before breakfast; about six is the time for that meal. If the farm hand cannot find enough work to keep him employed before breakfast he can go out and haul up a load of wood. It is good for him, makes him strong, increases the appetite, and his love for you is tenfold stronger.

Find fault with everything he does, whether right or wrong; it does him good; he will stay with you that much longer. Always go around with a long and sour face. Eat as fast as you can at the table. If you talk to the farm hand at all during meals tell him about some article you have read relating to the poor quality of farm hands at the present time. Take plenty of farm papers—six at least, one for every week day.

Make the farm hand do all the hard work. Use walking plow, but if you have a riding plow use that yourself; walking is good for the hired man's legs. Send him out to cultivate corn about four in the morning with a good fast team, and keep him at it until about thirty minutes after sundown. Probably you will have twelve cows for him to milk, and other work to keep him going two hours after he leaves the field. When a new hand comes give him all the hard work you can find for the first few days; that is the way to break in tender muscles. The farm hand likes this treatment and will probably stay with you.

Put the farm hand in the hottest bedroom in summer and the coldest in winter. Be sure to have a hard bed; he likes it; it makes him tough. These things will help in keeping farm hands from leaving you. Neighbors are going to ask Congress to revise the Chinese exclusion law. That is the proper thing to do; we need them. We could use the entire Chinese empire, fill the farms full, make things cheaper and take the independence out of the American farmer. Lower farm products. Corn is too high, wheat is way up. Farmers never made more money than they are making now. If you wish to take four loads of grain to market for the same price you are getting for one now bring over the Chinese. The American farm hand, who seems to be a great problem for some of our writers at the present time, would in a short time be changed to the incompetency of Chinese labor.—Breeder's Gazette.

## The New Hybrid Abutilons.

The abutilons are among the finest foliage and flowering plants. They are easily grown and make fine pot plants, if grown so that they become shapely. They should be potted in pots suitable to their size when received, and kept there shifted as they fill with roots. When the plants get to six inches tall, pinch out the tip, to induce branching. They should have a fine, well-enriched sandy loam, and should be kept well watered. Give them a sunny location until the buds come, when they should have partial shade. For bedding, they do well in solid masses, planted rather closely together so that they touch, but they make poor specimens in the open border.

SAMUEL A. HAMILTON.

Roaring Spring, Pa.



**PUMPS**

Tell us your needs. We'll meet them exactly with our magnificent line.

**Hand, Power, Steam.**

All kinds for all purposes (including Spray Pumps) with pipe and hose connections and power adapted, if desired. Let us suggest and estimate for your needs. Pump Catalog Free. Write to: **CHARLES J. JAGER CO., 100-102 High Street, Boston, Mass.**



**FARMS** For rich farming and fruit growing Write J. D. S. HANSON, Hart, Mich.

**CUTAWAY TOOLS FOR LARGE HAY CROPS.**

**CLARK'S Reversible** BUSH and DISK HARROW. 10 ft. deep. Will pull down cut forest. Its new action cuts down the forest, breaks the hard roots, moves, roots and dirt out 30 inches. Disk Harrow cuts a furrow 10 inches deep, 10 ft. wide. All of these machines are made in the U.S.A. and are guaranteed to give satisfaction. Send for circular.

**Cutaway Harrow Co.** HIGGANSUM, CONN., U.S.A.



**Stearns' SILO**

Engines, Cutters AND CARRIERS.

**THE A.T. STEARNS LUMBER CO.,** 156 Taylor St., Neponset Boston, Mass.



**WELL DRILLS.**

With one of Loomis' late improved machines you are sure of large profits on the capital invested. They are the leaders in this line. Certainly the greatest money earning well drilling machinery made in America. Address: **LOOMIS MACHINE CO., Tiffin, Ohio.**







ees—Boston, \$15.75; Lynn, \$15.75; Salem, \$15.75;  
Wburyport, \$15.55; Portsmouth, \$15.15; Lowell,  
\$15.75; Lawrence, \$15.75; Haverhill, \$15.75; Ex-  
ter, \$15.30; Dover, \$14.95.

Tickets are good going July 7 to 12, inclusive;  
returning not after July 26, 1904.



### Miscellaneous.

## The End of a Rainbow

### The End of a Rainbow.

The sudden summer shower was over and two children stood on the hotel veranda gazing wistfully at the glorious bow that spanned the sky.

"I wish we could touch it," the girl said longingly; "it's the most beautiful thing in all the world."

"Well," the boy returned practically, "I don't care much about touching it, but I'd be mighty glad to find the end of that rainbow."

"Why?"

"Don't you know, goose? There's a great pot of gold at the end, and it will belong to the person who can find it. Jiminy, but I wish I had it here this very minute."

"Let's go and get it."

The boy stared at his tiny companion in sur-

than his own, it appeared. Did the girl really mean that they should go off alone into that limitless forest when they were never even trusted near it unless accompanied by some older person? Still he took another look at the brilliant bow. This was certainly the chance of a lifetime, and, of course, he would not refuse to go any place that a girl was willing to go.

"Besides, it was her suggestion, anyway, not his, and if there were future temptations and

It was nearly twenty-four hours later that they were found. The boy's father, heading one of the many scolding parties that were scouring the woods, stumbled over them, and his pale lips formed forth a triumphant shout—for the children were safe, and, in view of that fact, all minor sins were forgiven.

Death had hovered too near leave room for any feeling save that of deepest thankfulness. There were no scoldings in store for the culprits, though both were questioned closely regarding

The boy always remembered with fervent gratitude that the boy never told any one that it was she who had proposed seeking the pot of gold.

The boy rather wondered at his own reticence, but after all it seemed rather a mean sort of trick to palm the responsibilities of his misdeeds on a girl! He kept so discreet silence on that point, and by doing so exhibited considerable more manliness than a certain ancestor of us all once displayed.

Two weeks later the hotel closed for the season, and the girl and the boy went their several ways. Off in her Eastwin home the girl did not quite forget the boy who had done his best to

Off in the West the boy remembered with a feeling of pride that the girl had never cried during that awful experience, and that she had never approached him for allowing her to go into such peril. Of course, he should have known better, or was not he a boy, and the elder, too?

The girl had been a casual summer acquaintance and the two were effectually separated when the brief summer season ended. For several years the boy begged his mother each June to go back to that place, but she had a shudder.

nothing would induce her to return.

So at last the boy gave up asking, and the experience was crowded into the background by a hundred new interests and aims.

It was a long time before he was a man, playing man's part in the world, the old desire suddenly seized him to return to that place. The hotel was still there, very modern in every way; at somehow he felt bored and missed an intangible something which he imagined he would find there. It was then the quiet became intolerable. He resolved to leave the place. That day she came.

He knew it was fate from the very first. He was not ordinarily inclined to be shy, but he felt like a raw schoolboy in her presence.

She had many friends, but he was then the only one who persisted to notice her, but he managed to share of her time.

He could not tell whether he was making any headway or not. She was friendly but very elusive, and the time had come when he must go back to his work, for there were obligations to be met.

He hurried her out that morning for a row, with the promise of a lovely spot which she had never seen. He was unusually silent and she leaned back in her corner of the boat watching him with speculative eyes. Apparently he was searching for some particular nook. At length his quest appeared and he pointed it out with great deliberation and then laid out his hand to her. Then they wandered over a wooded knoll nearby. "This is the place, I am sure," he said at last. I have seen it often in my dreams, and here is

She stared at him in mild wonder.

"No, I am not out of mind," he assured her, "I wanted to tell you a story, and I had an unaccountable fancy for telling it to you in this spot. Will you hear it?"

"Is it interesting? Does it commence 'Once upon a time'?"

"Of course it does. It would be an exceedingly *or* story if it didn't. I hope," and the man's face grew very earnest, "that you will be interested in the poor little story—but I cannot be sure—"

"'Once upon a time' when the world was nearly two decades younger than it is now, a boy and girl started from the hotel gown in that alley to find a pot of gold at the end of a rain-

ery mercurial creature, was thinking only of the gold, but the girl was much more poetic, for she cared nothing at all for the gold. She only wished to see more closely that wonder of mist and light which held and enthralled her fancy. They got lost; of course, that was a foregone conclusion, you know, and they were only discovered and saved by a kindly miracle of fate. The girl was a genuine brick, though, and never taunted the boy with his weakness and wickedness, but was leading her into such peril. The boy should have known better, you say, for he was considerably older, but she was always a good bit of a fool. He did not end the end of the rainbow. But for years he

He named it of, and in some mysterious way he came to fancy that the treasure was not gold. The nurse had told him, but that it was something infinitely more precious than gold. He was never quite sure what the mysterious treasure might be, but he knew that when he found a man he must seek it here—just on this spot, for it was a trifling matter that the rainbow seemed to have as the children looked up to see the valley below—just here by this little hill.

There was a silence. Her face was turned quite away. The man looked at her keenly and then went on with his story in a low voice, which, perhaps, showed that he was not sure of his own power, and so—he came here today. He never knows now what the treasure is at the end of the rainbow. A woman's heart and a woman's love. He does not know whether he dare claim it or not, but, if it is the gift which he most covets from life. And—can I have it, dear?

Her face was still turned away. The man's heart had time to grow very heavy before she

"I was always wildly grateful to you for not telling that it was actually I who had proposed her expedition."

"You don't mean," he interrupted breathlessly, "that you were—"

"—and—and I did want to find the end of the rainbow, too, and if you think that we could, perhaps, find it—together—why—"

He was holding her hand in a tight clasp, and

erent, incredulous joy.—Mabel C. Jones, in Every Where.

---

## Douth's Department.

---

### Fight with a Lion

Details of a terrible encounter with a lion in Mashonaland are published in the London Globe. An Englishman named Nicholson, accompanied by his Zulu servant, sighted the animal lying on top of a stony ridge. With a view to testing the

Three general discharges by the infantry, the cavalry, and eleven pieces of artillery, which lined the banks of the Potomac, back of the vault, paid the last tribute to the entombed commander-in-chief of the armies of the United States and to the venerable departed hero."

Yellow fever attacked the Southern States in 1878, and nearly fifteen thousand persons died of it. The attack was worst at Memphis and at

— In 1779, Franklin fitted out a fleet of five vessels, under command of Paul Jones. Only one of them, an old and rotten merchant vessel, the *Bonhomme Richard*, was fit for service. The rest were of respectable size, and Jones named the *Bonhomme* the *Richard*. The crew was disorderly and undisciplined, and Jones had the greatest difficulty in controlling it. The captain of the other vessels were fully as troublesome. For a month the fleet kept the eastern coast of Scotland and England in alarm, and made many prizes. September 23, 1779, it fell in with two British frigates, the *Serpent* of forty guns, and the *Phoenix* of the Countess, a Bergholm of twenty-two guns, and the *Albatross* of Flamborough Head, and one of the most desperate sea fights in history followed. The *Richard* and the *Serpent* were of equal force, and

A writer in the Jewish magazine, Menorah, who has been delving into the history of the Jerusalem, is satisfied that long before the Christ came, the Jews had been a nation of exploiters of wealth. Joseph, acting for Pharaoh, was in control of nearly all the ready money in the Egyptian and the Syrian and the Assyrian and the Babylonian and the Persian and the Greek and the Roman provinces. He buried the treasure in three places. Korah found one of these places, and he was killed for it. The other two were found by the writer in Menorah, thus came to possession of a fortune of \$3,000,000,000. Solomon's wealth was estimated by the same

In Roman times there were three Jews who tried to meet an expenditure of \$100,000,000 a year for twenty-one years. One of these men was a Jew named Josephus, who had been a gifted accumulator of wealth; our twentieth-century multimillionaires would cut a modest figure.

### Gems of Thought.

.....I suspect we shall find some day that the life of the human paradise consists chiefly in the closing of the human eyes; that at least far more of it than people think, remains about us all, only, only as we are filled with foolish desires and evil cares that we cannot see or hear, cannot smell or taste the pleasant things around us.....—George MacDonald.

.....Duty is a power which rises with us in the morning, and goes to rest with us at night.—.....

.....To meditate daily, to pray daily, seems a man's indispensable for breaking this surface crust of formality, habit, routine, which hides the springs of wisdom.—Orville Dewey.

.....The most beautiful of the uses of the most pious language of old, whatever delight they took in it, was to give to God the glory of it. When they heeded a flower, they said, "Blessed be He that

read, "Blessed be He that appointed bread  
strengthen man's heart."—Matthew Henry.

"Every finer instinct needs to reach upward  
to God, and to find its life in Him. It is  
ought. Then should we resolutely so order  
lives that the days should not fly past in a  
senseless whirl which our minds leap to follow,  
it that would hold breathing spaces for the  
soul.—Harriet Ware Hall.

"The holiness of God and through. Not  
most secret thought, which we most hide  
from ourselves, is hidden from Him. As then we  
come to know ourselves through and through,  
we come to see ourselves more as God sees us,  
and then, with some little glimpse of His dis-  
cernings with us, behold each ordering of His providence,  
each check to our desires, each failure of  
our hopes, is just fitted for us, and for something  
of our own spiritual state, which others know not  
and which, till then, we knew not. Until we  
know the state knowers, we must take all things  
believing the goodness of God toward us.—E. B.  
Seasey.

"Holiness is the reaching after rather than  
arriving at perfection."

"How good is it that, though new chapters  
open in our life's story, and people drop out  
whom we have loved, and incidents change so  
that it seems quite like another tale, yet the real

...The power that comes down is the only  
...that will lift up.—Ran's Horn.

...You distress yourself sometimes, poor  
...thing, because among those who surround you  
...there are one or two who worry and annoy you.  
...They do not like you, find fault with everything  
...you do. They meet you with a severe counte-  
...nanced and austere manner. You think they  
...do you harm, you look upon them as obstacles to  
...your delay long. Life passes away sad-  
...dened and faded, and gradually you become dis-  
...tressed. Courage! Instead of vexing your  
...self, if, thank God. These very persons are the  
...instruments of preserving you from humiliating faults,  
...perhaps even greater sins.—Selected.

**Brilliant.**

...You could push aside the gates of life  
...and stand within, and all God's workings see,  
...could interpret all this doubt and strife  
...and for each mystery find a key!

...not not today. Then be content, poor heart!  
...God's plans like lilies pure and wild, unfold;  
...not not fear, but let the angels pass apart;  
...Time will reveal the calves of gold.

And if, through patient toil, we reach the land  
Where, three feet, with sandals loosed, the  
may rest,  
When we shall clearly know and understand,  
I think that we shall say, "God knew the  
best!" —The Gateway.

And it falls a footstep! The gate of the garden  
is flung at the touch of a magical hand,  
And the world's waiting to welcome her coming,  
To offer her homage, the Queen of the Land!  
The feet follow the air with the breath of her blossoms,  
Crowding the pathway wherever she goes;  
And she grows the sky which is bending above her;  
And deep, and still deeper, the heart of the rose  
is filled with delight at the sound of her footsteps,  
And trembles with joy till its rich petals fall,  
And the wild sister, the rose of the highway,  
is thrown down from its perch over the wall.  
And she showers with her beauty the daylight still linger-  
ers,  
And loath to depart, till a young golden moon  
is seen its soft light where the dim, dusky garden  
is gleams'neath the fragrance it offers to June.  
—Ada Stewart Shelton.

Among the people that I know,  
The friends with whom I'm blessed,  
If I shall be the first to go,  
Shall I be missed?

Will one sweet word of cheer or hope  
Echo around the years  
When heeds Time shall swallow up  
The fresh-made tears?

Will some lone traveler take heart  
And bravely travel on  
Because I tried to do my part  
Till set of sun? —Eugene Scroten.

Will some lone traveler take heart  
And bravely travel on  
Because I tried to do my part  
Till set of sun?  
Will some lone traveler take heart  
And bravely travel on  
Because I tried to do my part  
Till set of sun?  
Will some lone traveler take heart  
And bravely travel on  
Because I tried to do my part  
Till set of sun?

hy longer amid shriveled leaf drifts tread,  
 When buds are swelling, flower sheaths peep-  
 ing through?  
 How trivial seem the struggle and the crown,  
 How vain past feuds, when reconciling tears  
 Course down the channel worn by vanished  
 frown.  
 How few mean half the bitterness they speak!  
 Words more than feeling keep us still apart,

and collar are made of Valenciennes, but overlaid with motifs of embroidery, while the waist is made of pale green messaline satin with lace medallions and shaped bands of the silk finished with tiny braid. The tucks extend for full length at front and back.

conceal the closing. The sleeves are v  
below the shoulder extensions, which g  
tonable dressing.

The waist is made over a fitted lining, which is closed at the centre front, the yoke being hooked into place at the right shoulder seam, and the hems of waist being lapped at waistline.

The quantity of material required for the medium size is 4 yards 21 inches wide, 4 yards 27 inches wide, 4 yards 34 inches wide, with 1 yard of silk for belt, 1 yard of 1/2 inch wide ribbon, and 1/2 yard of lace for trills.

The pattern, 4755, is cut in sizes for a 27, 32, 36, 38 and 40-inch bust measure.

**Nine-Gored Skirt. 4756.**

Many gored skirts of this sort are grown in vogue and take numbers for their popularity. This one is quite novel and eminently graceful, and includes a plated portion at each alternate gore that gives rare colored tints. The model is made of champagne-colored tulle, the model of silk braid and trimming of acru lace medallions, but the design is suited for very nearly the entire list of seasonable fabrics, linen, cotton and wool as well as silk.

The skirt is in nine gores, those at the side-front and side-back being of the same proportions each. The upper of these are plain and apertured at the

The quantity of material required for the medium size is 3 yards 21 inches wide, 5 yards 41 inches wide or 4 yards 32 inches wide, with five yards of braid and 21 medallions to trim as illustrated.

The pattern, 4758, is cut in sizes for a 22, 24, 26, 28 and 30-inch waist measure.

---



**4757 Plated Blouse**  
Kton, 32 to 40 bust.

**4758 Surplice Blouse,**  
32 to 40 bust.

Blosure Etons make favorite wraps of the season, band are seen in almost endless variations. This stylish model is made of earth brown velle of light cream linen, trimming of stitched taffeta and frills of cream linen. The blouse is charming, but it has many materials that are equally fashionable. Taffeta and all light-weight silks are much used and hand- some linens are much in vogue, while the list of reasonable wool fabrics is almost limitless.

The blouse is made with fronts and back that are laid in wide tucks becoming at their edges. Over the shoulders is a becoming yoke that is extended to the neck and down the front and at the waist is a snugly fit ed belt. The sleeves are fitted with becoming roll-over cuffs, but are tucked to fit the upper arms with comparative snugness.

The quantity of material required for the medium size is as follows: Yards of fabric 27 inches wide is 5½ yards 21 inches wide 27 inches wide or 2½ yards 44 inches wide, with ⅞ yard 21 inches yoke and banding, ¾ yard of lace for frills and 2 inches of silk for lining.

In the pattern, cut in sizes for a 36, 38, 38 and 40-inch bust measure.

**Surplice Blouse. 4759.**


Surplice styles are always charming and this season are also eminently smart. The very pretty waist illustrated takes a mirable lines and folds and includes the essential features of the season in the drop shoulders, the wide sleeves and the full belt. The model is made of ring-dotted Swiss muslin, finished with heavy lace banding and chemisette and frills of thinner sort and is unlined, but all the many soft silks and wools are suitable as well as cotton and linen stuffs and the fitted foundation can be used whenever desirable.

The waist itself is made with fronts and back, the hemstitch being separate and arranged under it, but the lining is smoothly fitted and closes separately at the centre front. The sleeves form the wide, full puffs of the season and can be either lined or unlined. The belt is made of soft silk, cut bias, and is simply stayed with strips of bone.

The quantity of material required for the medium size is  $\frac{3}{4}$  yards 21 inches wide,  $\frac{3}{4}$  yards 27 inches wide or  $\frac{3}{4}$  yards 44 inches wide, with  $\frac{1}{4}$  yard of all-over lace,  $\frac{1}{4}$  yard of silk for belt,  $\frac{3}{4}$  yards of banding and

The pattern, 4758, is cut in sizes for a 32, 34, 36, 38 and 40-inch bust measure.

and 40-inch bust measure.



**4758** Child's Dress, 2 to 6 yrs.

**4760** Negligee Gown, 32 to 40 bust.

**Child's Dress. 4759.**

In spite of the popularity of trousers among wee, mail boys, there is a brief period when tiny legs refuse to be so covered and when dresses are essential. This very little model is well adapted to wear during that time, and also is suited to little girls of more mature age, being correct for them to the age of six. The model is made of pale blue chambray

There are numerous other materials that suit it equally well. It is simple, can be laundered with ease, and is thoroughly comfortable and satisfactory for the wearer.

The dress is made with fronts and back, and is laid in box plaits at centre back and front with tucks on the sides and shoulders to the shoulders. Both plaits and tucks are stitched to the belt, pressed into place below. The closing is made invisibly at the centre, and the belt serves to keep the fullness in position. The dress is made in one box plait each and are tucked at the wrist.

The quantity of material required for the medium size (4 years) is 44 yards 7 inches wide, 44 yards 32 inches wide, 44 yards 32 inches wide, 44 yards 32 inches wide.

The pattern, 4785, is cut in sizes for children of 2, and 6 years of age.

**Negligee Gown in Empire Style. 4786.**

To Be Made With or Without the Blouse.

No style yet devised suits the negligee more perfectly than the Empire. It is graceful, picturesque and comfortable. The dress is made with a full, well-taped to the lovely soft materials of present fashions. This one is made of flowered batiste trimmed with frills of simple lace and is eminently

The quantity of material required for the medium  
 14 yards 7 inches wide, 13 yards 2 inches  
 10 or 8 yards 4 inches wide, when founce is used,  
 6 yards 7 inches wide, 5 yards 2 inches wide or 8

**HOME DRESSMAKING.**—For a catalogue of any pattern illustrated on this page, send 15 cents (coin or postage stamp), state number shown on cut, and size wanted, and write your name and address distinctly. Mail orders filled promptly. Address MASSACHUSETTS FLEECING MAN, Boston, Mass.

**HOME DRESSMAKING.**  
SPECIAL PATTERNS—For a catalogue of any pattern illustrated on this page, send 10 cents (coin or postage stamp), state number, shown on cut, and size wanted, and write your name and address distinctly. Mail orders filled promptly. Address MASSACHUSETTS PLUMMER, Boston, Mass.



## The Horse.

### The Arab Horse.

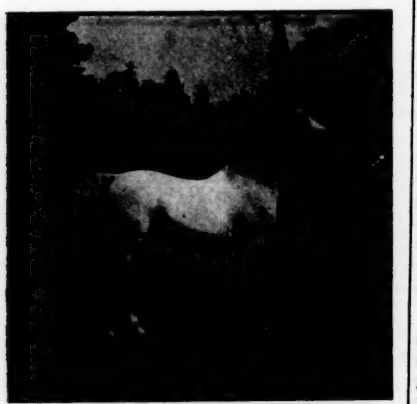
Though there is some unreliable sentiment associated with the Arab horse, yet there is not a vestige of doubt but that they are of superior symmetry and quality. This is perfectly summed up by Sheikh Abd. El. Kader: "The horse of pure descent is distinguished by thinness of its lips, and the cartilage of the nose, by the dilation of its nostrils, by the leanness of the flesh encircling the veins of the head, by the softness of its coat, its mane and the hairs of its tail, by its breadth of chest, the largeness of its joints and leanness of its extremities. According to the traditions of our ancestors, the thoroughbred is still better known by its moral characteristics than its physical peculiarities."

Major R. D. Upton, in "Newmarket and Arabia," gives the characteristics of the Arabian horse in the following statement: "The Arabian is a horse of the highest courage, in stature about fourteen hands two inches, a horse of length, power and substance, combined with the elastic and sinuous-like movement of the serpent. He is a very perfect animal; he is not exaggerated, in some parts large, meagre and diminished in others. There is a balance and harmony throughout his frame, not seen in any other horse; the quintessence of all good qualities in a compact form."

Charles Du Hays, who is an acknowledged authority in horse breeding, has written: "Everything we have good, pure, distinguished comes from Araby. Our breeding of half-blood horses is fallen unfortunately into the hands of proprietors and farmers who are poor judges of extractions, and now cross-breeding is made at a venture according to the fashion. It was not so formerly, the breeds were less numerous but much finer, and in the hands of a few, great lovers of hunting and of saddle horses, strong and elegant, and I am sure bred from the Arabian horse, as far as one can judge by the names. Being seventy years old, I have had the good fortune to be acquainted with some old people who had raised or known of those horses, and as I was the friend of all of them, I know the origin of their stables was from Araby."

In another place, M. Du Hays says: "The Arabian is kind, intelligent, reliable, laborious and easily kept, and if it be necessary to give more style, action, richness to the blood, while preserving weight, hardihood and vigor of other horses, ask these qualities of the Arabian."

The head of the typical Arabian horse is exceedingly straight and the eye markedly full and bright. Perhaps the most striking



ARABIAN STALLION, SHAHWAN.

feature of the type is the round and extra well-ribbed barrel. In action the movement of the legs is very peculiar, being very strong and elastic. Though small, the form is exceedingly smooth and symmetrical, while the evidences of quality are strikingly shown.

The Arabian stallion, Shahwan, was bred by Ali Pasha, Sherif, Egypt, sold to W. S. Blount, 1892, and taken by him to England and afterwards sold to present owner, J. A. P. Ramsdell, Newburg, N. Y. The photograph shows this horse to be a model of symmetry, style and quality.

### Turf and Stable.

The man who instructed his foreman to give away a half dozen thoroughbred yearlings last fall, was surprised a few days since at the speed shown by a couple of two-year-olds that he saw at work. Upon inquiry, he learned that they were among those that he had condemned as worthless only a few months ago. It is a shrewd horseman who can correctly estimate the speed and racing quality of an untrained youngster.

There are men who are so honest that they cannot be influenced by money; there are men whose verberal columns are inflexible; there are men who understand the trotting rules thoroughly; there are men who understand horses and the tricks of drivers so well that they can detect fraud when an attempt is made to practice such in a race; the stewards of the Grand Circuit are looking for a man who possesses all these qualities and a few others.

The breeder who pays the closest attention to combining those blood lines that have nicked best in the past will eventually have the biggest bank account. The old-time trotting champion Dexter (2:17) was the result of combining the blood of Seely's American Star with that of Rysdyk's Hambletonian. Robert McGregor (2:17), sire of the present one-star champion Crescens (2:02), was bred in similar lines.

An expert calls attention to the falseness of the notion that fast race horses cannot be raised in cold climates. Among the cold climate horses are Major Delmar, (1:59), The Abbot (2:03), Alix (2:03), Lord Derby (2:05), The Monk (2:05), Fantasy (2:06), Lucille (2:07), Chase (2:07), McKinley (2:07), Peter the Great (2:07).

It is probable that the stewards of the Grand Circuit, by hiring an expert judge to preside at its meetings, has set an example that the National and American Trotting associations may in time follow, with all the tracks controlled by them.

The daughter of Nelson's Wilkes that took a trotting record of 2:30 in the second heat of a race at Gorham, Me., Sept. 9 last, under the name of Susie Wilkes, is now owned by D. C. Clinch, Kq., St. John, N. B. She has been registered under the name of Susie C. Wilkes, because there was another mare already registered as Susie Wilkes when application was made to register her. If she is raced again it will be under the name of Susie Wilkes.

It was probably May Allen (2:04), a daughter of Que Allen (2:08-2:5), that recently dropped a fine filly by McKinley

(2:14), instead of Que Allen himself, as announced by an exchange. The record of Que Allen, when he was taken across the water, was 2:03, but in 1899 he reduced the European record to 2:08-2:5 in a five-heat race that he won.

### Notes from Washington, D. C.

In the treatment of cattle scab, the lime and sulphur dip has proved effective and entirely satisfactory. In the past few years many thousands of cattle have been successfully treated for scab under the observation and supervision of the Government. The lime and sulphur dip which is now adopted and recommended for the treatment of cattle scab by the Bureau of Animal Industry is the same as that used for sheep. It is made with the following ingredients: Flowers of sulphur, twenty-four pounds; unslaked lime, eight pounds; water, one hundred gallons. A recent bulletin gives full directions for making this dip by two methods, and also for dipping, including the construction of dipping-pens and tanks with numerous illustrations.

"Strawberries" is the title and subject of a farmer's bulletin (198), of which thirty thousand copies are about to be issued by the Department of Agriculture.

The strawberry, the bulletin says, is an American product. It adapts itself to a wider range of latitude and to greater extremes in environment than any other cultivated fruit. Sandy or gravelly soil is recommended for its location. "A warm, quick soil, although naturally poor, is to be preferred to a heavy, retentive soil well supplied with plant food. On light soils the plant not only thrives better, but the crop is more abundant and the berries are larger and sweeter."

The familiar suggestion is further made that land before planting to strawberries be reduced to a fine tilth, and to this end that it be clean cultivated for one or two years to other crops. In planting, plants with small crowns but an abundant development of roots are desirable. It is important not to plant too deep, as plants are often killed through smothering their buds by soil. Nitrate of soda is recommended as a highly desirable fertilizer or stimulant for strawberries, in applications of about one hundred pounds to the acre.

The New York and Ohio Ginseng Company, "growers of American ginseng," located in Cuba, N. Y., have been sending out letters to the agricultural press suggesting that if editors desire to publish articles on ginseng they will be pleased to furnish them information and loan them illustrations. The company states that it believes ginseng to be the most profitable crop taken from the soil. This offer to furnish editors with articles and illustrations is a legitimate method of arousing interest in a new industry, but in this case it is as well, perhaps, to sound a note of warning against overproduction of ginseng. The Department of Agriculture has published a bulletin on ginseng, and while its cultivation has proved profitable, it is a question how long the demand will absorb the increasing production. Frederick B. Coville, the botanist of the department, stated to me that while ginseng cultivation is a profitable industry for those who master the art of its cultivation, there is, in his opinion, a serious danger of overproduction.

Depth of corn cultivation varies with circumstances and conditions. In a wet season it is essential to stir the soil deeply to give it good aeration. Deep stirring is also necessary in wet seasons, because weed roots grow rapidly. There are those who advocate deep plowing at all times, although, on the other hand, they are taken to task by others who claim that it is just as prudent to cut off the leaves from the stalks as it is to cut the roots with the cultivator. One instance is noted in a recent Government publication, where a comparison of the deep and shallow method of cultivation gave an increased yield of twenty bushels per acre in favor of shallow cultivation for the last two plowings.

Unique requests continue to amuse the clerks at the Agricultural Department. A letter was recently received addressed to the secretary asking to please send a good supply of fish seed—gold fish preferred, if these were good eating, but if they were not, then any good, lively fish which would grow well and produce a firm, sweet meat.

Cultivation, early, often and thorough, helps the crops as much as the June showers.

Now is the time to put in hard work in tree cultivation to secure as much wood growth as possible. Practically all wood growth will cease in less than a month. Frequent orchard cultivation is of great importance to conserve the moisture which trees require in large quantities.

GUY E. MITCHELL.

### Stone Bulkheads for Cranberry Bogs.

It has been my idea for a number of years that boards or planks were not the proper material for building or constructing bulkheads. In the first place lumber rots and muskrats work around them. Furthermore, it is lighter than the soil around it and easily heaves by the frost.

A year ago last summer I built quite a number of sandstone and Portland cement. Clay stone I found by accident was not so good, as the water softened, scaled and rotted the stone.

For the floor, in most of the bulkheads I used sixteen-foot timber for the cross pieces. Three in number or more according to the size of bulkhead required, and on them nailed double boards for platform. I left a four-foot space for the water to run through a frame made of 4x6 inch stuff, same as a door frame, to nail oleats on so to drop the slash boards between. This frame I put right into the mason work or piers on each side to hold the frame in place.

These piers should be made smooth so the sand and mud will press firmly against them. I found that the bulkheads built onto wooden platforms were all right, but some that were built on stone were a failure.

The piers should be built wide enough, as there is considerable pressure from the dam to the centre of the bulkhead.

A few of the bulkheads I made large and long enough, and used the piers for foundations for bridges to drive on to the dams. Making roads of the dams to haul berries from the marsh is very important. Every other dam should be so constructed, and at the ends of the dams where they connect should be rounded for the turn of the wagon.

It will readily be seen the importance of making roads of the dams. Driving over the dams makes them solid; in case of fire it acts as a good fire brake; hauling any kind of material off or on the marsh. All dams if made of mud should be sanded. The softest dams can be made solid by hauling several feet of sand on them.

The ditches should be so constructed that the bottom be narrower across than the top,

say about forty-five degrees slant. Quick flooding and quick draining and thorough draining are necessary for the successful growing of cranberries. If ditches are dug every two rods any low places where water stands, it will be carried away and cranberry vines will do better.

The photograph will give your readers on the Cape Cod district an idea of our Wisconsin cranberry bogs. The view was taken from Superintendent McKerrrow of the State farm institute. The bog is owned by Gaynor Brothers, and is located about five miles west of Grand Rapids. The ridges seen in the picture are formed from the "scalping" or turf removed from the ground before planting the vines.

FRED W. GEBHARDT.  
Monroe County, Wis.

### Successful Calf Raising.

We prefer taking them from their dams at first, never letting them suck, and feeding with a bottle and nipple for a few days until strong and active. Why? Because the milk of a good dairy cow is too rich for the calf to take all it will, and many a calf has been made sick and weak from this cause, and if fed with a bottle, you know just how much they have at a time, and the cow is not teasing for her calf for several days, as they will if allowed to suck.

Our experience is with the Jersey calf, and a thoroughbred calf is small and has to be cared for more carefully than a grade calf. We feed only a quart of milk at a feed, three times a day at first, for two or three days, and then put in half separator twice and give two quarts or three to a feed as the calf will bear. Some will take double what others will. Gradually decrease the amount of new milk until three or four weeks old we get them onto separator milk alone, always being sure it is free from froth and clean and as warm as it can be and in a clean pail.

At three weeks old supply them with hay and a box of bran that they may lick dry, as this will not cause them to scour as it will if fed in the milk. For grain, feed bran, linseed and fine feed or mixed feed. Never feed corn meal or anything fattening to a dairy calf, but give hay, ensilage or grass wilted, and develop just as large a stomach and strong digestive organs as you can for use when they become cows, for it is the cow that can eat and assimilate the most food that produces the most milk and butter as a rule.—G. H. Terrill, Vermont.

### Among the Farmers.

I find cows do best on part hay and part green food. I am about done sending my cows to pasture up country.—W. C. Taylor, Westford, Mass.

In this age of machinery we are learning that there is a way to increase our business and diminish our expenses.—R. H. Libbey, Newart, Me.

Some men refuse to feed the horses before breakfast, although it is at 6:30 A. M. Others refuse to do a single chore after threshing or corn cutting. The "boss" or owner himself in those days will have to milk six to ten cows after night.—S. M. C., Welland County, Ont.

The man on a thirty or forty-acre farm who, through intensive farming and judicious management can make a fair profit, is more independent than the man on the large farm, for the latter class, as a rule, are slaves to hired help.—A. B. Stanffer, Freeburg, Me.

We have tried four different kinds of these proprietary sheep dips and they have not any of them been entirely satisfactory. We have practiced during the past two years, in the semi-annual dipping which we give our sheep, adding a pound of powdered sulphur to each five gallons of prepared dip. Then you catch every tick and every little red louse which may be troubling your sheep. The sulphur seems to stay in the wool and acts as a sort of protection, and we find it much more satisfactory in reaching sheep ticks than is the dip alone; it doesn't do any harm and is very cheap.—R. E. Roberts, Corvallis, Wis.

You have a better chance right at home than anywhere else on earth. There is no better spot on this continent than right here in New England. This section is well watered. You have a good climate, a soil very productive if cared for. Please look at your truck gardens or any section of land here that is well cultivated; such land pays well. There is no trouble about producing five times as much as we do. The more intensely you cultivate your land the better crops you will get of every kind. If you will cultivate it you will make money here. Talk about worn-out land, there is no such thing as worn-out land, it is only dormant.—George M. Clark, Higganum, Ct.

### Grain Crops Improving.

In the Government crop report for June the statistician did not alter his May 1 estimate of the winter wheat acreage. He reports a general increase in the condition of winter wheat except in Michigan, where there is a loss of seven points, to fifty-four (comparing with a condition of eighty-six a year ago), and a decline of nine points in California to sixty—against a condition of seventy-six on June 1, 1903.

The average condition of winter wheat for the entire country is given at 77.7, an increase of 1.2 from the May 1 estimate, but comparing with 82.2 on June 1 a year ago. On this basis, according to the estimate of Mr. J. C. Brown, statistician of the New York Produce Exchange (the Department of Agriculture making no quantitative estimate), the promise is for a winter wheat harvest of 565,627,000 bushels, which is 54,000,000 bushels below the 1903 yield.

The department starts its spring wheat reports with a condition of 93.4, which on the given area of 17,140,000 acres indicates a crop of 291,394,000 bushels—a total that has but twice been exceeded in taking the combined figures of winter and spring wheat, we have a total harvest outlook of 657,021,000 bushels, which compares with last year's total yield of 577,821,835 bushels, and has been but thrice exceeded, namely, by the harvests of 1902, 1901 and 1898.

The average condition of winter wheat on June

1 was 77.7, as compared with 76.5 on May 1, 1904, 82.2 on June 1, 1903, 76.1 at the corresponding date in 1902, and a ten-year average of 78.8. The following table shows for each of the principal winter wheat States the conditions, with comparisons:

Preliminary returns to the Department of Agriculture on the acreage of spring wheat sown, indicate an area of about 17,140,000 acres, a decrease of 116,100 acres, or 0.7 per cent. The following table shows for each of the principal winter wheat States the conditions, with comparisons:

The average condition of spring wheat on June 1 was 93.4, as compared with 95.9 at the corresponding date last year, 95.4 on June 1, 1902, and a ten-year average of 93.5.

The acreage under ripe shows a reduction of six per cent. from that harvested last year.

The average condition of rye is 86.3, against 90.5 on June 1, 1903, 88.1 at the corresponding date in 1902 and 89.6 the mean of the corresponding averages of the last ten years.

### Produce Notes.

The first shipment of California muskmelons brought over \$10 per crate in Chicago. This is said to be the best price on record.

The experiment of shipping Cuban peaches to New York market has been somewhat of a failure, conditions being poor on arrival and unsatisfactory. Part of the trouble was owing to care less packing.

The poor quality of peaches, blackberries, etc., received from North Carolina is accounted for by the dry weather in that section. If rain does not come soon it is thought the peach crop will be a partial failure, and blackberries are likely to be small and of poor quality. The same droughty conditions are reported in Florida, causing considerable injury to the truck crops, particularly muskmelons.

The Boston market for field beans has a generally dull, weak tone. Choice domestic peas are hard to sell at over \$1.85. Best foreign peas show at \$1.75. Yellow eyes and red kidneys in limited demand.

### Potatoes.

Foreign potatoes are mostly out of the market. There is some Canadian stock of ordinary quality, some good Scotch potatoes and a few Belgians.

These are from storage and doubtless net the owners quite a profit over the cost price. The new potato crop is reported growing very fast in New Jersey and Long Island, as well as in the potato sections of New York State. Good crops are reported in the Southwest, including Tennessee and Arkansas, which mainly supply the Western markets. Old stock is now about over and new potatoes will soon practically hold the market. Quality of old potatoes is becoming poor and spongy.

### General Range of Prices.

A comparison of the prices for the last week of May, 1904, with the first week of May, 1903, shows an advance in prices of wheat, corn, oats, cotton, wool, native steers, cows, and certain grades of hides; also in coffee, India rubber, petroleum, both crude and refined; sugar, both raw and refined; lead and silver. The above named are all the articles which show an advance.

The articles which show no change are jute and steel rails.

Articles which show a decline are family beef, mess pork, lard, tallow, and steamin, rice, tea, pigiron, both Bessemer and Southern foundry; iron bars, steel bars, steel billets, tin plates, coke, raw silk, mohair, Manila hemp, sisal hemp, hides of certain grades, leather of all grades, copper, tin and spelter.

Practically all the farm products in their natural state show an advance, including cattle, though beef, pork and lard show a decline. A large proportion of the various grades of hides shows an advance, though leather of all grades shows a decline.

### Provisions Strong and Active.

Prices have been working upward on both pork and beef products as a result of active demand from consumers and speculators. The improved situation has brought out a good supply. Shipments of hogs to Boston were fairly large for the season, but not excessive.

Fresh beef closes the week in a very firm position, with prices three-fourths of a cent higher than last Saturday. A determined effort is being made to force prices on to a paying basis, the first result being to restrict trade somewhat, notwithstanding small receipts intended for the local market. The arrivals of fresh beef were slightly smaller for Boston. The total for the week was 152 cars for Boston and 115 cars for export, a total of 267 cars; preceding week, 155 cars for Boston and 154 cars for export, a total of 309 cars; same week a year ago, 175 cars for Boston and 112 cars for export, a total of 287 cars.

The market for lambs and muttons is fairly supplied and trade is rather quiet, though prices are fairly steady, the same being true of veal. Poultry is in moderate receipt and prices rule steady, except on Western fowls, which are easy.

**JULY 1 AND 2 NIAGARA FALLS EXCURSION VIA BOSTON & MAINE RAILROAD.**

Round Trip \$3.40 via Rotterdam Junction, \$3.90 via Troy.

The lowest rate, the shortest route and service on such beautifully equipped and fast trains as the Chicago Express, the "Continental Limited" and the "National Limited," is what the Boston & Maine Railroad offers on the Niagara Falls Excursion, July 1 and 2; returning not after July 4. Either the West Shore Route, \$10.40, through the Mohawk Valley, or the Erie Route, through southern New York, \$9.90 round trip.



## Cambridge Trust Company,

At the Close of Business, June 9, 1904.

ASSETS.		LIABILITIES.	
Time Loans, with collateral.....	\$373,292.00	Capital Stock.....	\$100,000.00
Demand Loans, with collateral.....	255,980.00	Deposits subject to check.....	1,244,403.29
Notes Discounted.....	222,688.50	Certified checks outstanding.....	330.72
Loans on Real Estate.....	55,925.00	Undivided Earnings, less expenses.....	105,688.62
State of Mass. and other Bonds.....	288,725.00		
Safety Deposit Vaults and Fixtures.....	19,250.00		
Deposited in National Banks.....	100,057.94		
Cash on hand—in office.....	34,599.22		
Overdrafts.....	35.50		
	\$1,450,453.67		\$1,450,453.67

ALVIN F. SORTWELL, President. GEO. HOWLAND COX, Vice-Pres. and Treas. HERBERT H. WHITE, Vice-President. A. M. WHEELER, Sec'y and Asst. Treas.

DIRECTORS: GEO. HOWLAND COX, JOHN H. HUBBARD, NATHANIEL C. NASH, ALVIN F. SORTWELL, FREDERIC DODGE, E. D. LEAVITT, WM. TAGGARD PIER, HENRY O. UNDERWOOD, IRA N. HOLLIS, JAMES J. MYERS, J. HENRY RUSSELL, HERBERT H. WHITE, HENRY WHITE.

BANKING ROOMS AND LARGE SAFE DEPOSIT VAULTS FOR STORAGE, Etc., OPEN TO THE PUBLIC FOR INSPECTION.

## Mercantile Trust Company

60 STATE STREET.

Capital.....	\$500,000
Surplus.....	\$300,000
Deposits.....	\$4,660,000

Corporation, Firm, Individual and Trust Accounts Solicited. Act as Trustee under Wills, or otherwise, and as Executor and Administrator of Estates. A general Banking Business transacted.

OFFICERS: CHARLES A. PRICE, President. FRANK W. REYNOLDS, Vice-President. S. PARKMAN SHAW, JR., Asst. Treasurer. ANDREW W. PRESTON, Vice-President. CHARLES B. JOFF, Treasurer. GEORGE G. BRADFORD, Secretary.

### DIRECTORS

Stephen M. Crosby, Henry C. Jackson, Frank W. Rollins, Livingston Cushing, William B. Lambert, Richard S. Russell, George C. Cutler, William H. Lincoln, Henry E. Russell, Samuel J. Elder, Neil McNeil, Sumner C. Stanley, Edward Hamlin, Andrew W. Preston, Philip Stockton, Arthur K. Hunt, Charles A. Price, Hales W. Suter, Cyrus S. Hapgood, John P. Reynolds, Jr., Walter S. Swan, Robert F. Herriek, Frank W. Reynolds, Henry O. Underwood, Henry D. Verza.

INTEREST ALLOWED ON DEPOSITS SUBJECT TO CHECK

# FIELD & COWLES, INSURANCE.

85 WATER STREET, BOSTON.

## College Song Books

Harvard University Song Book.....	\$1.50
Columbia University Songs.....	1.25
Dartmouth Song Book.....	1.00
Tech Songs.....	1.25
College Songs.....	.50
College Songs for Girls.....	1.00

Oliver Ditson Co.,

150 Tremont Street.

## Kidder, Peabody & Co.

115 Devonshire Street, Boston.

Investment Securities, Foreign Exchange, Letters of Credit.

## DAN PATCH 1:56 1/4

Fastest Harness Horse in the World

Holds following world records:

His beautiful colored picture free. Printed in six brilliant colors—Size 21 by 26 inches.

We own the World-Famous, Champion Pacing Stallion, Dan Patch, and have fine lithographs of him. They give complete record of all his Races and Fast Miles and are Free of Advertising. The large lithograph will show Dan hunched as you see him in this engraving.

IT WILL BE MAILED TO YOU FREE POSTAGE PREPAID.

1c.—How Much Stock of All Kinds Do You Own? 2c.—Same Paper in Which You Saw This Offer.

INTERNATIONAL STOCK FOOD CO., Minneapolis, Minn., U. S. A.